ABSTRACT OF THE DISCLOSURE

An existing diffuser is modified by creating through-holes in its diffusive surface that allow sound to travel through the diffuser to the rear of it where an absorptive material is provided. The absorptive material may be made of any suitable material such as fiber glass, foam or mineral wool. The cut-off frequency between diffusion and absorption may be "tuned" or adjusted by varying the total volume of holes made within the diffuser, and by determining the particular cavities (and their depths) that are chosen to be modified through the provision of holes. In each embodiment of the present invention, holes or slots are formed in a diffusive surface and such holes or slots form one component of a resonant absorber. The perforations can be any shape or size and by varying the perforation and cavity size, the inventive devices may be "tuned" to begin to absorb sound below a desired chosen frequency.